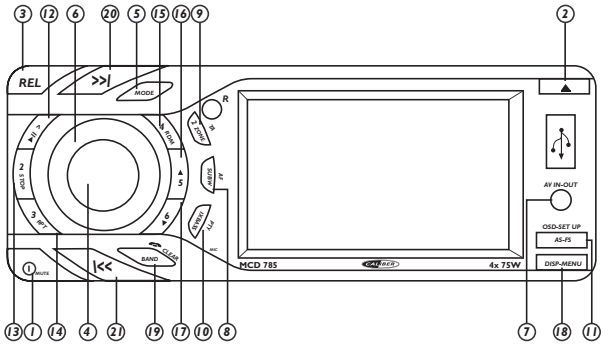


1. MUTE / POWER
2. EJECT
3. PANEL RELEASE
4. AUDIO MENU BUTTON / CD, DVD OK. BUTTON
5. MODE
6. ENCODER VOLUME
7. 3,5MM A/V IN JACK
8. SUBWOOFER / TUNER AF
9. 2 ZONE / TUNER TA
10. 1X-BASS / TUNER PTY
11. TUNER PS AS / CD SET-UP / DVD OSD SET-UP
12. TUNER M1 MEMORY 1 / CD PAUSE PLAY / DVD PAUSE PLAY
13. TUNER M2 MEMORY 2 / CD STOP / DVD STOP
14. TUNER M3 MEMORY 3 / CD REPEAT OFF, REPEAT TRACK, REPEAT DISC / DVD REPEAT OFF, REPEAT CHAPTER, REPEAT TITLE
15. TUNER M4 MEMORY 4 / CD RANDOM FOLDER / DVD SHORT PRESS M4 --> DVD MENU
16. TUNER M5 MEMORY 5
17. TUNER M6 MEMORY 6 / DVD AUDIO
18. DISPLAY MENU
19. TUNER BAND
20. TUNER SEEK UP TUNE UP / CD FILE/TRACK UP FAST FORWARD / DVD NEXT FAST FORWARD
21. TUNER SEEK DOWN, TUNE DOWN / CD FILE/TRACK DOWN FAST BACKWARD / DVD BACK FAST BACKWARD

SPECIFICATIONS

GENERAL

Power Supply	DC 11 -14,4V
Polarity	Negative Ground
Speaker impedance	4 ohms
Power Output	4 x 75W

DVD / CD PLAYER

Usable disc	DVD+/-R, DVD+/-RW, CD, CD-R, CD-RW, USB, SD
Sampling frequency	
No of quantization bits	
Frequency	20-20,000Hz
Number of channels	2 stereo
S/N Ratio	90dB

RADIO SECTION

FM

Frequency Range	87.5-108 Mhz
Usable Sensitivity	Better than 15dB at S/N 30 dB
Stereo Separation	25 dB at 1KHz
S/N Ratio	50 dB

AM / MW

Frequency Range	522-1620 Khz
Usable Sensitivity	Better than 40dB
S/N Ratio	40 dB

REMARK :
Specifications subject to change without notice.

DISC PLAY

PRECAUTIONS

- Use only in a 12-volt DC negative-ground electrical system.
- Disconnect the vehicle's negative battery terminal while mounting and connecting the unit.
- When replacing the fuse, be sure to use one with an identical amperage rating.
- Using a fuse with a higher amperage rating may cause serious damage to the unit.
- DO NOT attempt to disassemble the unit. Laser beams from the optical pickup are dangerous to the eyes.
- Make sure that pins or other objects do not get inside the unit; they may cause malfunctions, or create safety hazards such as electrical shock or laser beam exposure.
- If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car become normal before operating the unit.
- Keep the volume at a level at which you can hear outside warning sounds (horns sirens, etc.).

CD NOTES

- Playing a defective or dusty CD can cause dropouts in sound.
- Hold CDs as illustrated.
- DO NOT touch the unlabeled side.
- DO NOT attach any seal, label or data protection sheet to either side of a disc.
- DO NOT expose a CD to direct sunlight or excessive heat.
- Wipe a dirty CD from the center outward with a cleaning cloth.
- Never use solvents such as benzine or alcohol.
- This unit cannot play 3-inch (8cm) CDs.
- NEVER insert a 3-inch CD contained in the adapter or an irregularly shaped CD.
- The unit may not be able to eject it, resulting in a malfunction.

BEFORE OPERATION

- DO NOT raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operation.

CAUTION

DO NOT open covers and do not repair by yourself. Consult the dealer or an experienced technician for help.

INSTALLATION PROCEDURES

First complete the electrical connections, and then check them for correctness.

ANTI-THEFT SYSTEM

This unit is equipped with a detachable panel.
Removing this panel makes the radio totally inoperable.

REMOVING THE PANEL

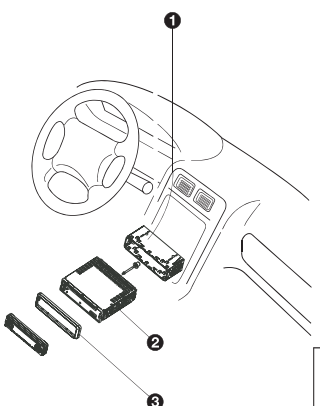
1. Switch off the power of the unit.
2. Remove the detachable panel (REL button).
3. Gently press the button of the case and open the cover. Place the panel into the case and take it with you when you leave the car.

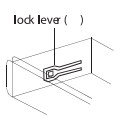
INSTALL DETACHABLE PANEL

1. Fix right part of face plate in the right part of panel slot of the unit.
2. Press down the left side of the face plate until it clicks into the panel slot of the unit.

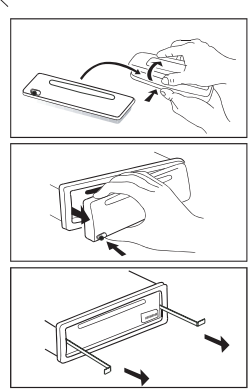
REMOVE THE UNIT

Switch of the power of the unit.
1. Remove the panel and the trim plate.
2. Insert both T-Keys into hole in front of the set until they lock.
3. Pull out the unit.

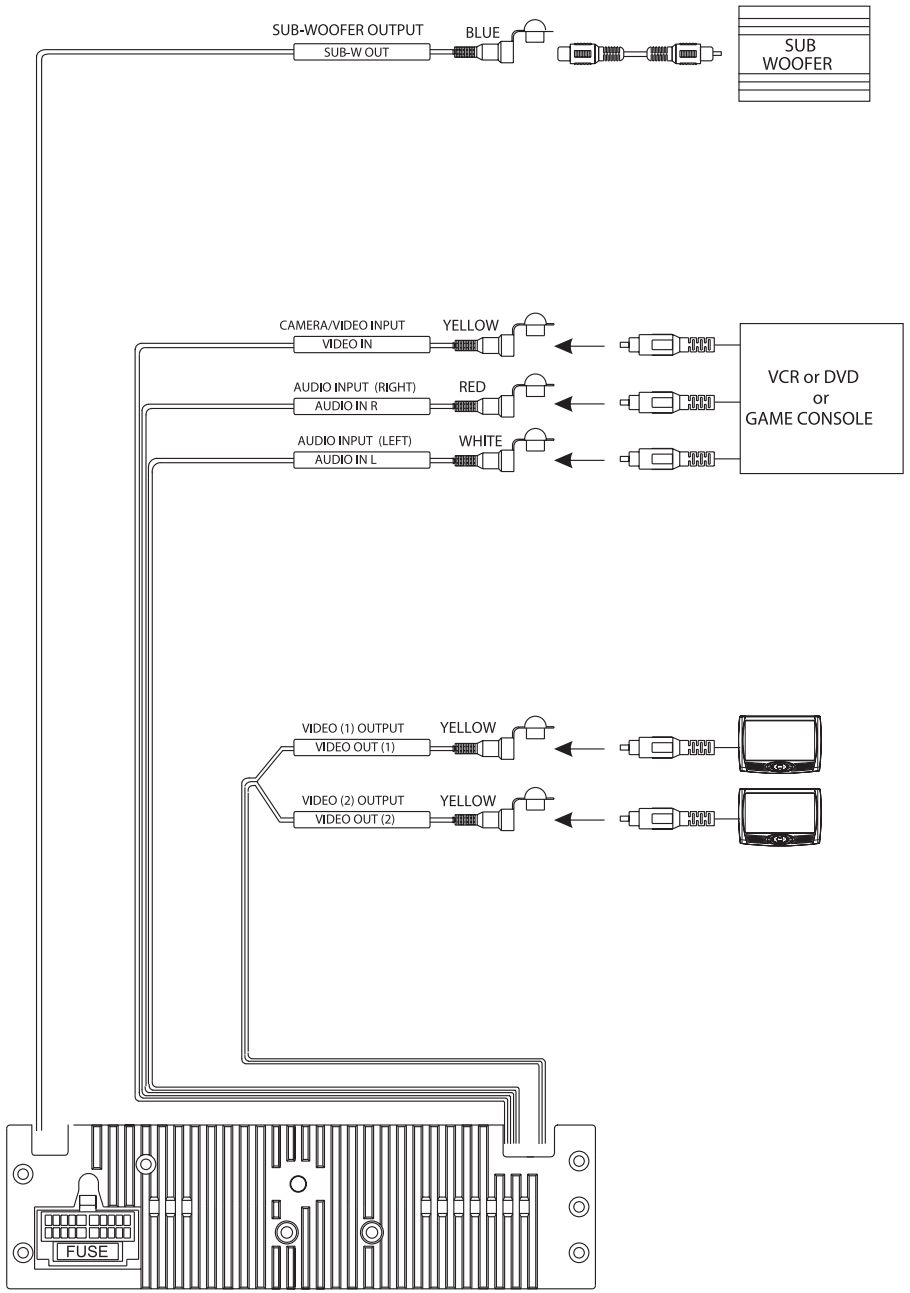




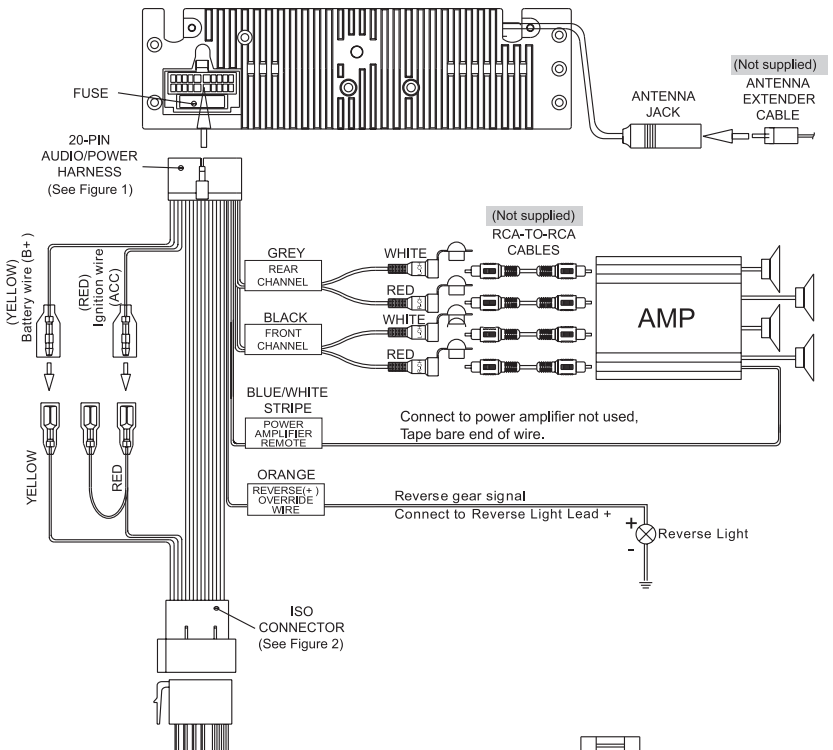
1. Insert mounting bracket into the dashboard, and bend the mounting tabs out with a screwdriver. (Make sure that lock lever is flush with the mounting bracket. Not projecting outward)
2. Secure the rear of the unit After fixing mounting bolt and power connector, fix the rear of the unit to the car body by rubber cushion.
3. Insert trimplate



WIRING DIAGRAM-AUDIO/VIDEO CONNECTIONS



WIRING DIAGRAM-POWER/SPEAKERS (ISO + SMALL CONNECTOR)



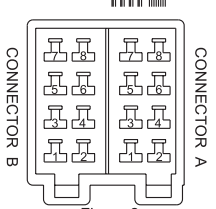
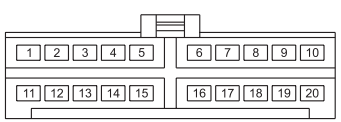


Figure 2

ISO CONNECTOR 4 PIN + 8 PIN FEMALE WITH MALE TERMINAL

ISO CONNECTOR WIRING CHART		
PIN	WIRE COLOR	FUNCTION / LABEL
A4	YELLOW	BATTERY(+)
A5	BLUE	POWER ANTENNA
A7	RED	IGNITION(ACC)
A8	BLACK	GROUND
B1	VIOLET	RIGHT REAR SPEAKER (+)
B2	VIOLET / BLACK	RIGHT REAR SPEAKER (–)
B3	GREY	RIGHT FRONT SPEAKER (+)
B4	GREY / BLACK	RIGHT FRONT SPEAKER (–)
B5	WHITE	LEFT FRONT SPEAKER (+)
B6	WHITE / BLACK	LEFT FRONT SPEAKER (–)
B7	GREEN	LEFT REAR SPEAKER (+)
B8	GREEN / BLACK	LEFT REAR SPEAKER (–)



Pin View

Figure 1

20 PIN AUDIO / POWER HARNESS

20 PIN HARNESS PIN CHART		
PIN	WIRE COLOR	FUNCTION / LABEL
1	GREY / BLACK	RIGHT FRONT SPEAKER (–)
2	GREY	RIGHT FRONT SPEAKER (+)
3	VIOLET	RIGHT REAR SPEAKER (+)
4	VIOLET/BLACK	RIGHT REAR SPEAKER (–)
5	ORANGE	REVERSE OVERRIDE WIRE (+)
6	GREEN	LEFT REAR SPEAKER (+)
7	GREEN / BLACK	LEFT REAR SPEAKER (–)
8	RED	IGNITION (ACC)
9	BLACK	REAR PRE-AMPLIFIER LINE OUT COMMON
10	RED	RIGHT REAR PRE-AMPLIFIER LINE OUT
11	WHITE	LEFT FRONT SPEAKER (+)
12	WHITE / BLACK	LEFT FRONT SPEAKER (–)
13	BLUE/WHITE	POWER AMPLIFIER REMOTE (+)
14	BLUE	POWER ANTENNA
15	YELLOW	BATTERY (+)
16	BLACK	CHASSIS GROUND
17	WHITE	LEFT FRONT PRE-AMPLIFIER LINE OUT
18	RED	RIGHT FRONT PRE-AMPLIFIER LINE OUT
19	BLACK	FRONT PRE-AMPLIFIER LINE OUT COMMON
20	WHITE	LEFT REAR PRE-AMPLIFIER LINE OUT

PANEL OPEN/CLOSE OPERATION

This unit is equipped with the most advanced full logic motorized slide down system. You can enjoy this advance technology with just a single press of the "OPEN" button Please read carefully the following operation instruction before operating the unit.

OPEN / CLOSE THE PANEL

Press the Open button to slide down (open) a closed panel or to slide up (close) an opened panel.

LOADING A CD

When the panel is in the slide down position, the disc slot becomes accessible. Insert a CD through the disc slot, the CD will be automatically loaded and the panel will also close automatically & playback will begin. If no CD is inserted, press Open button again to slide up(close) the panel.

EJECTING A CD

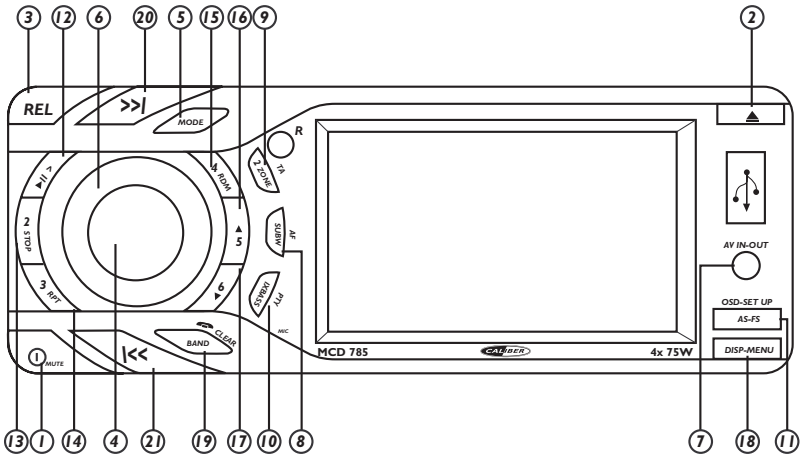
Press Open button to slide down the panel, if a CD is loaded, it will be ejected automatically. No further key press is needed. If the ejected CD is not being removed, after 10 seconds it will be reloaded automatically. And the panel will automatically slide up after disc has been reloaded. Warning : If the ejected disc remains in the slot, the Open button will not function, so closing the panel by using Open button is prevented unless the disc is removed or reloaded.

CAUTION

A) Please always use the "OPEN" button to slide up/ down the front panel. Please never try to slide up or down the front panel manually, this will cause serious & permanent damage to the slide down mechanism, and this will void the warranty.

B) Please do not try to detach / remove the front panel (by pressing the detach button) or attach the front panel when the panel is in the slide down position. This may cause serious & permanent damage to the unit & panel. Only attach or detach the front panel when the panel is in the slide up position.

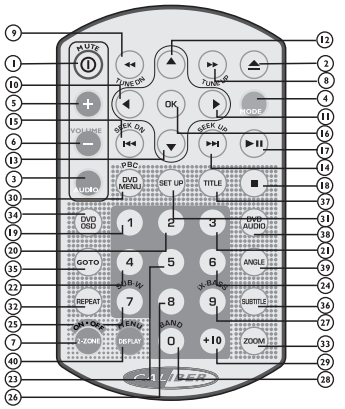
CONTROL PANEL FUNCTION



OPERATIONS:

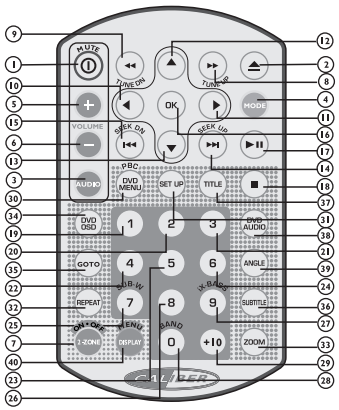
KEY	SYSTEM		TUNER		CD/MP3/WMA		DVD	
	Short Press	Long Press	Short Press	Long Press	Short Press	Long Press	Short Press	Long Press
1	Mute	Power						
2	Open & Close				Eject		Eject	
3	Panel Release button							
4	Audio Menu				Ok		Ok	
5	Mode							
6	Encoder Volume							
7	3.5mm A/V In Jack							
8		Sub-W	AF					
9		2 Zone	TA					
10		Ix-bass	PTY					
11			PS	AS		Set-up	OSD	Set-up
12			M1	Memory 1	Pause/Play		Pause/Play	
13			M2	Memory 2	Stop		Stop	
14			M3	Memory 3	Repeat Off / Repeat Track / Repeat Disc		Repeat Off / Repeat Chapter / Repeat Title	
15			M4	Memory 4	Random Folder		Short press M4 → DVD Menu	
16			M5	Memory 5				
17			M6	Memory 6				DVD Audio
18	Display	Menu						
19			Band					
20			Seek Up	Tune Up	File/Track Up	Fast Forward	Next	Fast Forward
21			Seek Down	Tune Down	File/Track Down	Fast Backward	Back	Fast Backward

REMOTE FUNCTIONS



OPERATIONS:

KEY	SYSTEM		TUNER		CD		MP3		DVD	
	Short Press	Long Press	Short Press	Long Press	Short Press	Long Press	Short Press	Long Press	Short Press	Long Press
1	Mute	Power								
2	Open & Close				Eject		Eject		Eject	
3	Audio Menu									
4	Mode									
5	Volume Up									
6	Volume Down									
7	2-Zone									
8			Tune Up		Fast Forward		Fast Forward		Fast Forward	
9			Tune Down		Fast Backward		Fast Backward		Fast Backward	
10					Left		Left		Left	
11					Right		Right		Right	
12					Up		Up		Up	
13					Down		Down		Down	
14			Seek Up		Track Up		File Up		Next	
15			Seek Down		Track Down		File Down		Back	
16					Ok		Ok		Ok	
17					Pause/Play		Pause/Play		Pause/Play	
18					Stop		Stop		Stop	
19			M1	Memory 1	Track NO. Access		File NO. Access		Numeric 1	
20			M2	Memory 2	Track NO. Access		File NO. Access		Numeric 2	
21			M3	Memory 3	Track NO. Access		File NO. Access		Numeric 3	
22			M4	Memory 4	Track NO. Access		File NO. Access		Numeric 4	



OPERATIONS:

KEY	SYSTEM		TUNER		CD/MP3/WMA		DVD	
	Short Press	Long Press	Short Press	Long Press	Short Press	Long Press	Short Press	Long Press
23			M5	Memory 5	Track NO. Access File NO. Access		Numeric 5	
24			M6	Memory 6	Track NO. Access File NO. Access		Numeric 6	
25		Sub-W			Track NO. Access File NO. Access		Numeric 7	
26					Track NO. Access File NO. Access		Numeric 8	
27		iX-Bass			Track NO. Access File NO. Access		Numeric 9	
28			Band		Track NO. Access File NO. Access		Numeric 0	
29					Track NO. Access File NO. Access		Numeric +10	
30							VCD: PBC DVD: DVD MENU	
31					Set Up		Set Up	
32					Repeat Off Repeat Track Repeat Disc		Repeat Off Repeat Chapter Repeat Title	
33							Zoom	
34							OSD	
35							Go To	
36							Subtitle	
37							Title	
38							DVD Audio	
39							Angle	
40	DISPLAY	MENU						

BASIC OPERATIONS

3) PANEL RELEASE BUTTON (REL)
Press this button to remove the control panel.

1) POWER ON/OFF BUTTON
Long press the POWER button or Short Press any other button on the front of the unit (except the Open/Eject) to turn On the unit. Long press the POWER button to turn Off the unit.

1) MUTE BUTTON
Short Press the MUTE button to mute the audio output, and "Mute" will appear on the display. Press the mute button again to restore the audio output to the previous level.

NOTE Please refer to the related description in "Audio Operation of Sub-woofer" for details operation of the Subwoofer control !

TIPS The Subwoofer Level and Low Pass Filter control will only appear in the Audio Menu only if the Subwoofer function is currently activated 'On".

8) SUB-WOOFER (SUB-W)
Long Press the SUB-W button to activate the Sub-woofer function On, and "Sub-woofer" will appear on the LCD display for 3 seconds. press the SUB-W button again to turn off the Sub-woofer function.

10) iX-BASS BUTTON (iX-Bass)
Long Press the iX-Bass button to turn on the IX-Bass function, and "iX-Bass" will appear in the LCD display for 3 seconds. Press the iX-Bass button again to turn off the IX-Bass function

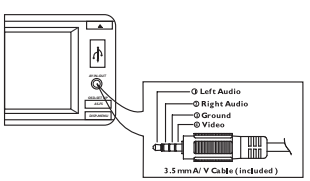
NOTE Please refer to the related description in "Audio Operation of iX-Bass" for details operation of iX-Bass control

TIPS The IX-Bass Boost Level control will only appear in the Audio Menu only if the iX-Bass function is currently activated 'On".

5) MODE BUTTON (MODE)
Short Press the MODE button to select a different mode of operation as indicated on the display panel. Available modes include Tuner, DVD, Card(SD/MMC Card), USB, AV IN-1 and AV IN -2

6) ENCODER VOLUME BUTTON
To increase the volume, rotate the volume control knob clockwise. To decrease the volume, rotate the volume control knob counter clockwise. When the volume is adjusted, the volume level is shown on the display panel as a number ranging from 00 (lowest) to 46 (highest).

FRONT PANEL A/V IN JACK
The unit is allowed to connect with external Audio / Video system such like Digital Camera or Game Console. You can connect the external A/V system through the A/V in jack on front panel. After connect with external A/V system, pressing mode to "A/V In" to enjoy this external A/V system on this unit.



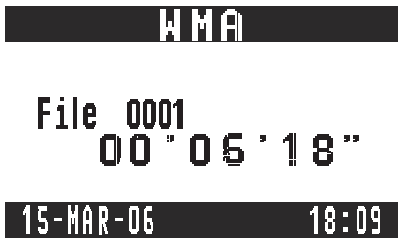
NOTE The unit only supports the 3.5mm A/V Jack Pin Assignment shown as the diagram.

TIPS The unit supports A/V out thrue the A/V Jack on front panel. For more details of operation, please refer to "Menu operation-AV Jack".

DISPLAY / MENU BUTTON

This DISPLAY inter-change button can be used to interchange between the 2 types of DISPLAY INTERFACE, the 'Image Display Interface" & 'Big Font Display interface'. This is useful when playing a CD or MP3 or WMA or other music disc and if user prefers to see the CD Track no / MP3 File number and elapse time with bigger numerical fonts, the Big Font Display offers a better read out for the numerical display. User can press the DISP button to inter-change from Image Display

Image Display Interface



Big Font Display Interface

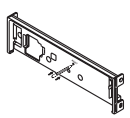
Caution:
In some countries, it's unlawful to operate a vehicle while video is displayed in the driver's viewing area. Please always switch the unit's display to "Big Font Type Display" mode by pressing the DISP/MENU button while driving. For safety reason, the driver should only enjoy / watch the video while the car is in parking mode.

- RESET

After releasing the front panel, use a pencil or any non-metallic object to press & hold the reset button for five seconds to reset the main unit and the unit will return to the factory default settings.

- TO RESET THE DVD SETTING

Press SET UP button on remote control or long press AS/PS button to bring up the SET UP Menu, select RATING then select DEFAULT, the DVD Setting will resume to factory default value .



MENU OPERATIONS

MENU FUNCTION LIST (MENU)

Press & hold the DISPLAY/ MENU button for more than 3 seconds to access into the menu. User can navigate thru the menu items by pressing the DISPLAY/ MENU button repeatedly, or by pressing the Tuning Up or Tuning Down Buttons to move to the next or previous menu item. Once the desired menu item appears on the display, user can adjust that option by using the Encoder Vol Knob within 5 seconds. The menu items can be adjusted as described below:

ANGLE

The panel viewing angle of the display can be adjusted by rotating the encoder vol knob to select the most appropriate viewing angle. This is useful for user to adjust & obtain the optimum viewing angle inside the vehicle.

CONTRAST

The contrast level of the TFT display is set at "CONTRAST 10" by default. User can use the Encoder Vol Knob to adjust the contrast level from 00 to 50.

BRIGHT

The brightness level of the TFT display is set at "BRIGHT 20" by default. User can use the Encoder Vol Knob to adjust the brightness level from 00 to 50.

COLOR

The color level of the TFT display is set at "COLOR 30" by default. User can use the Encoder Vol Knob to adjust the color level from 00 to 50.

DATE SET

Once in Date Set mode, User can use the Encoder Vol Knob to adjust the Date / Month / Year. Short press the AUDIO button to confirm the entry and move to the next entry.

CLOCK

The time of the clock is set to 12:00 by default. User can adjust the time by rotate the Encoder Vol knob clockwise to adjust the minute and rotate the Encoder Vol knob anticlockwise
to adjust the hour.

TIPS If the unit is equipped with the OPTIONAL RDS Function, the clock will be automatically updated by the RDS roadcasting, provided if the RDS broadcast does include the clock information (RDS CT FUNCTION)

TIME FORM

"12H" is the default setting. User can use the Encoder Vol Knob to choose the Time Format between "12 Hours" & "24 Hours"

AV JACK

The panel AV Jack is default as "AV In" source. User can use the Encoder Vol Knob to select "OUT". Once "OUT" is selected, the panel AV jack is changed as an AV OUTPUT (AV OUT) of the Audio / Video Signal of this unit's Built-in DVD player.

TIPS This AV Out selection is useful for user by simply plug and connect to any external TFT system without any extra installation.

CAMERA

"OFF" is set as default. If user connected a back up camera system to this unit, user should choose Camera "ON" mode. Once "ON" is selected, & the vehicle is in Reverse Gear (Backup mode), the front in-dash TFT display will automatically switch to Back Up Camera Video signal regardless whatever mode is currently displayed on the front in-dash TFT.

NOTE If connected to a back up camera system but this option is selected to "OFF" mode, User still can press the mode button to switch "AV In 1" to display the Back Up Camera Video on the front in-dash TFT.

TUNER SET

User can use the Encoder Vol Knob to select between Local or Distance mode. This feature is used to designate the strength of the signals at which the radio will stop during automatic tuning. "Distance" is the default setting, allowing the radio to stop at a broader range of signals. To set the unit to select only strong local stations during automatic tuning, rotate the Encoder Vol Knob button until "Local" appears on the display.

TUNER AREA

User can use the Encoder Vol Knob to select the frequency spacing which is most appropriate for the area this unit is used in, U.S.A. South America, Europe or Oirt. (Russia Band)

BEEP TONE

The beep tone feature allows the selection of an audible beep tone when a button is pressed. "BEEP TONE On" is the default setting. Rotate the Encoder Vol Knob to select the "BEEP TONE Off" option

PROGRAMMABLE TURN-ON VOLUME (VOL PGM)

This option allows the adjustment of the volume level of the radio will automatically assume when turning on. "VOL PGM 12" is the default setting. To program a specific turn on volume level, use the Encoder Vol Knob to select "VOLUME LEVEL" within 5 seconds.

REAR SPEAKER ON/OFF (REAR SPK)

Rear speaker is set to 'ON' by default. If OFF is selected, the rear speaker's audio output will be TURNED OFF. This function is useful while listening with the HEADPHONE and user doesn't need Rear Speakers sounds output through rear speakers. Select "ON" to reactivate the rear speakers sound output

NOTE :When the Rear Speaker is 'OFF', the Audio Function, 'FADER', will not be functional

INTER AMPLIFIER ON/OFF(INTER AMP)

This is a option selection for user to turn the unit's built-in Amplifier system on or off. "OFF" is the default setting. This option is useful for user if connected to an external Amplifier & the user does not want audio output of the built-in amplifier system.

DUAL ZONE OPERATION

"2-ZONE" DUAL A/V ZONE MULTI ENTERTAINMENT OPERATION:

This unit is equipped with the most advanced "Dual A/V Zone" feature. This function is useful if the user would like to select different modes of the Audio and Video (AV) output source for Front and Rear Speakers and TFT Screens. For example, user can select to listen to Tuner music for front speakers and rear speaker for DVD movie. And if the user has One or more TFT screens installed in the rear seat or inside the Car, the Dual A/V Zone function allow the users to enjoy TWO different Video sources. For example, on the front in-dash Built-In TFT screen can display the video from the Game Console and the other screen in the rear seat can display video from DVD Movie or other A/V source. The detail operation as follow:

ON/OFF OPERATION

- "Off" is the default setting.
- Long press the "2-Zone" button on the control panel or remote control to switch between Dual Zone On or Off. The "2-Zone" will appear on the LCD after Dual Zone is selected "on".

TO SELECT FRONT / REAR AV SOURCES

- Once "ON" is selected, Short Press the "AUDIO" button repeatedly to change between the F-Zone (Front) and the R-Zone (Rear) sources.
- If Front Zone "F-Zone" is selected, user have 10 seconds to use the Volume UP / DOWN button to navigate through different modes: Tuner > DVD > AV - In are available for selection for Front AV Output.
- If Rear Zone "R-Zone" is selected, user have 10 seconds to use the Volume UP / DOWN button to navigate through different modes: Tuner > DVD > AV - In are available for selection for Rear AV Output
- If no selection is being made within 5 seconds, the unit will resume to the previous mode.

TO OPERATE FUNCTION OF FRONT / REAR SOURCES

- The Front Panel & Remote control, is defaulted to control the FRONT source's function / operation.
- When DUAL ZONE is turned "ON", the Mode button is used to change between the Front Source & Rear Source. Press the mode button repeatedly to change between Front and Rear
- The LCD will display the Rear Source mode for 10 seconds. User has 10 seconds to make the desired operation on the Rear Source's function on the Front Panel or Remote The LCD will automatically switch back to the Front Source after 10 seconds. And the Front Panel and Remote now is resumed to operate for Front Source's function again.

THE DEFAULT SETTING WHEN DUAL ZONE IS "ON"

- When DUAL ZONE is turned on, the audio output will be muted for about 1 second.
- The default source / mode for Front ZONE is Tuner & for Rear ZONE is "DVD"
- The default Volume level is "12" for both Front & Rear ZONE audio output. (or the Volume Level set as VOL PGM Level set in the Menu)
- The LCD display is defaulted to display the Front Mode.
- When Dual Zone is "ON", the audio functions Bass / Treble / Middle / Balance / Fader / Sub-woofer / iX-bass will not be available.

THE DEFAULT SETTING WHEN DUAL ZONE IS IN "OFF" MODE

- The default audio output reverts to what the user selected for the FRONT Zone source when DUAL ZONE IS "OFF". For example: When the DUAL Zone is "ON ", user has selected DVD for Front ZONE & Tuner for Rear ZONE. Once DUAL ZONE is turned "OFF", Audio Output for all 4 speakers becomes "DVD" mode.

AUDIO OPERATION

AUDIO MENU

Short Press "AUDIO" button to access the Audio Menu. User can navigate thru the Audio Menu items by pressing the / "AUDIO" button repeatedly, or by pressing the Tuning Up or Tuning Down Button. Once the desired menu item appears on the display, adjust that option by using the encoder volume knob within 5 seconds. The following menu items can be adjusted as described above. The unit will automatically exit the Audio Menu after five seconds of inactivity.

SUBWOOFER

Sub-woofer (Level)

User has 5 seconds to use the encoder volume knob to adjust the Sub-woofer lever from '00' to

NOTE The Sub-woofer level control is only applicable if the unit is equipped with the optional subwoofer line out, and only if the unit is connected to an optional sub-woofer speaker.

NOTE The Sub-woofer level control option will only appear in the Audio Menu if the "Sub-woofer" function is activated "ON" by pressing the "Sub-w" button on control panel.

Sub-woofer Low Pass Filter (LPF)

User has 5 seconds to use the encoder volume knob to select the 4 different Low Pass filter Flat, 80Hz, 120Hz or 160Hz.

NOTE The Sub-woofer LPF control is only applicable if the unit is equipped with the optional subwoofer line out, and only if the unit is connected to an optional sub-woofer speaker.

NOTE The Sub-woofer LPF option will only appear in the Audio Menu if the "Sub-woofer" function is activated by pressing the "Sub-w" button on control panel.

X-BASS

User has 5 seconds to use the encoder volume knob to select the 3 different Bass Boost level: Low, Mid, or High.

BASS

BASS LEVEL(Level)

User has 5 seconds to use the encoder volume knob to adjust the desired Bass level range from -6 to +6.

BASS -CFQ (C.Frq).

User has 5 seconds to use the encoder volume knob to adjust the desired Bass Center Frequency to 60Hz, 80Hz, 100Hz, or 200Hz.

BASS-Q: (BassQ)

User has 5 seconds to use the encoder volume knob to adjust the desired Bass Quality Factor to 2N, 1N, 1W or 2W.

Figure 1 shows the Bass Quality factor (Curve characteristics) of each step.

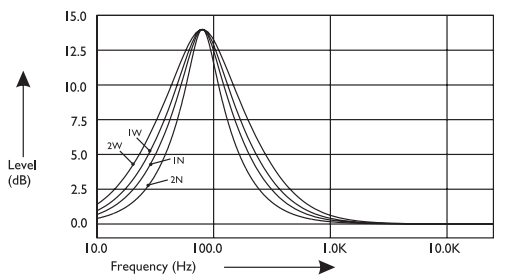


Figure 1

MIDDLE

MIDDLE (LEVEL)

User has 5 seconds to use the encoder volume knob to adjust the desired Middle level range from -6 to +6.

MIDDLE-CFQ (C.FRQ)

User has 5 seconds to use the encoder volume knob to adjust the desired Middle Range Center Frequency to 500Hz, 1KHz, 1.5KHz, or 2.5KHz.

MIDDLE-Q (MID-Q)

User has 5 seconds to use the encoder volume knob to adjust the desired Middle Quality Factor to 2N, 1N, 1W or 2W.

Figure 2 shows the middle Quality factor (Curve characteristics) of each step.

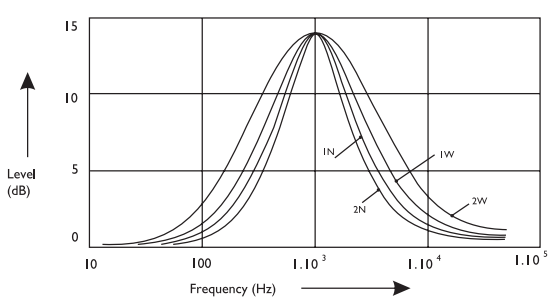


Figure 2

TREBLE

TREBLE (LEVEL)
User has 5 seconds to use the encoder volume knob to adjust the desired Treble level range from -6 to +6.
TREBLE CFQ (FREQ)
User has 5 seconds to use the encoder volume knob to adjust the desired Treble center frequency to 10KHz, 12.5KHz, 15KHz, or 17.5KHz.

BALANCE
User has 5 seconds to use the encoder volume knob to adjust the Balance between the right and left speakers from R12 (full right) to L12 (full left). "C00" represents an equal balance between the right and left speakers.

FADER
User has 5 seconds to use encoder volume knob to adjust the Fader between the front and rear speakers from R12 (full rear) to F12 (full front). "C00" represents an equal balance between the front and rear speakers.

TUNER OPERATION

19)BAND BUTTON (BAND)
Press BAND to change between FM bands and AM(MW) bands.

20&21)TUNING UP/DOWN BUTTON (⏭/⏮)

MANUAL TUNING
Press the Up Tuning(⏭) or Down Tuning (⏮)button for more than 3 seconds to move the radio frequency number up or down by one step.

AUTO SEEK TUNING
Press the Up Tuning (⏭)or Down Tuning (⏮)button for less than 3 seconds to move to next station automatically.

12~17)PRESET STATIONS BUTTONS
Six numbered preset buttons store and recall stations for each band.

11)AUTOMATICALLY STORE / PRESET SCAN (AS/PS)
Automatically select 6 strong stations and store them in the current band. Select a band (if needed). Press AS/PS button for more than three seconds. The new stations replace stations already stored in that band.

PRESET SCAN
Scan stations stored in the current band. Select a band (if needed). Press AS/PS button for less than 3 seconds. The unit will pause for ten seconds at each preset station. Press AS/PS button again to stop scanning when the desired station is reached.

STEREO
The unit will automatically pick up a stereo signal when available. When in stereo mode, the ST icon appears in the display. When no stereo signal is available, the unit will automatically revert to mono operation, and no icon will be displayed.

RDS OPERATION

RDS FUNCTIONS
The unit is equipped with the following RDS function:
- AF Alternative Frequencies
- CT Clock Time
- EON Enchanced other Network
- PI Program identifications
- PS Program service name
- PTY Program Type
- REG Regional Change
- TA Traffic Announcement
- TP Traffic program

1. AF FUNCTION
By pressing AF button < 3 seconds to select AF ON/OFF.'AF' icon will light up on the LCD. Under AF "On" mode, if the tuned in station signal is getting weak, the unit will automatically switches to a different frequency on the same network with stronger signal.

NOTE Factory Default setting is "AF ON"

2. TA FUNCTION
By pressing TA button < 3 seconds, to switch on TA standby mode. The TA icon will light up on the LCD. In the stand by mode, when a traffic announcement broadcast starts, the traffic announcement broadcast will be received as top priority regardless of the function mode. When a traffic announcement starts, "TRAFFIC INFO" will show on the LCD, press the TA button can cancelled the broadcast reception while a traffic announcement broadcast is being received. The unit will go back to the previous mode and TA goes into stand by mode again. When the TP icon is not light up for 60 seconds. A beep Alarm tone is heard and the LCD will show "Lost TP, TA". TA seek will automatic activate and searches to another TA station.

3. PTY FUNCTION
Pressing PTY(TA) button more than 3 seconds to go into PTY select mode. The user now has 5 seconds to select the desired PTY item by using encoder volume knob. Once selected the PTY item, user have 5 seconds to press AUDIO/CENTER" or "TUNE UP (>>)or TUNE DOWN" (<<) buttons < 3 seconds to seek for the selected PTY item. The LCD will display "PTY SEEK". If no station with the selected PTY broadcast can be received, the LCD will display "No Match PTY" for 5 seconds then returns to the previous mode.

User can store his favorite PTY into the preset memory M1 to M6. After selected a PTY item, long press any one of the preset memory button can store the selected PTY. To recall the stored PTY item switch on PTY mode then press preset memory < 3 seconds, the unit will automatically search the stored PTY station in the preset memory

Music Group	Speech Group
POP, ROCK	NEWS, AFFAIRS, INFO, TEST, ALARM
EASY, LIGHT	SPORT, EDUCATE, DRAMA
CLASSICS, OTHER	CULTURE, SCIENCE, VARIED
JAZZ, COUNTRY	WEATHER, FINANCE, CHILDREN
NATION, OLDIES	SOCIAL, RELIGION, PHONEIN
FOLK	TRAVEL, LEISURE, DOCUMENT

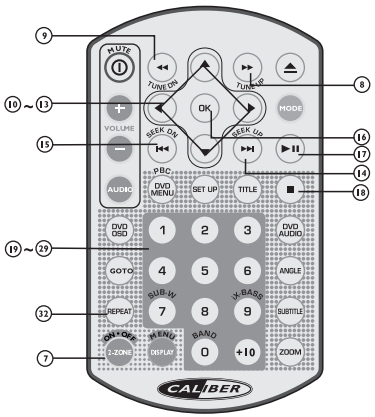
NOTE Factory default stored for PTY preset memory:
M1/News, M2/Information, M3/Pop Music, M4/Sports, M5/Classics, M6/Finance.

CD OPERATION

AUDIO CD OPERATION - TFT MONITOR
When a Audio CD is inserted into the player and the following picture will appear on the TFT monitor.

AUDIO CD OPERATION - REMOTE CONTROL

To operates CD function through the following keys on the remote control.



17. PAUSE / PLAY BUTTON
18. STOP
14. NEXT
15. BACK
8~9 FAST FORWARD & FAST BACKWARD
19~29 NUMERIC BUTTONS
32. REPEAT
10~13 UP/DOWN/LEFT/RIGHT BUTTON
16. OK BUTTON
7. RANDOM BUTTON

17) PAUSE/ PLAY BUTTON (▶II / M1)

1. Press PAUSE to pause playback (still mode). The sound from the disc is muted during still mode.
2. Press PLAY to resume normal playback.

18) STOP(■)

1. Press STOP to stop playback and show the logo screen. The player memorizes the location where playback is stopped.
2. Press PLAY to resume playback from the location where playback is stopped (DVD, VCD 1.1, VCD 2.0 and audio CD).
3. Pressing STOP twice is resume playback from the beginning of the disc.

14) NEXT(⏭)

Press NEXT to skip forward to the beginning of the next chapter.

15) BACK(⏮)

Press BACK to skip backward to the beginning of the previous chapter.

8~9) FAST FORWARD& FAST BACKWARD(⏭ or ⏮)

1. Press FAST FORWARD to fast forward through the disc. Each time the button is pressed,a new speed (2X, 4X, 8X or 20X) is selected.
2. Press PLAY to resume normal playback.
3. Press FAST BACKWARD to fast reverse through the disc. Each time the button is pressed, a new speed (2X, 4X, 8X or 20X) is selected.
4. Press PLAY to resume normal playback.

NOTE The fast forward/backward speed may differ depending upon the disc.

19~29) NUMERIC BUTTONS

1. When playback CD/MP3/WMA use for track number or File number direct access and use when function need numeric Selection or Input, like in the Goto function,etc.

2. Use when playback DVD which need numeric Selection or Input, like in the Goto function,etc

32)REPEAT

Press REPEAT button less than 3 seconds to "repeat play" the current song. And keep on repeat Playing the current song until the "repeat play" is disabled. To disable current song "repeat play", press REPEAT button less than 3 seconds

10~13)UP/DOWN/LEFT/RIGHT BUTTON (▲/▼/◀/▶)

Use to move cursor up/down/left/right.

16)OK BUTTON

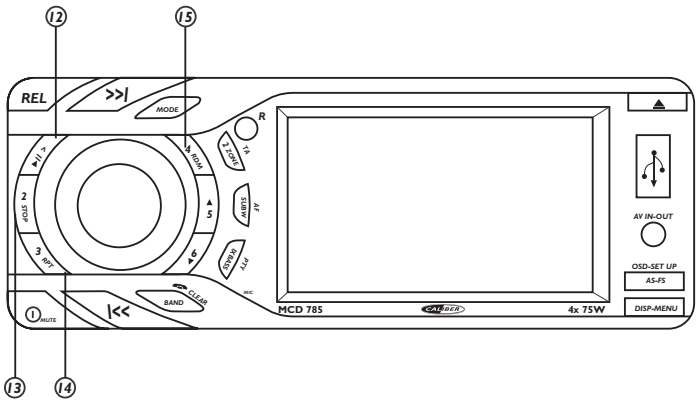
Use this button to confirm the selection.

7) RANDOM BUTTON

RANDOM button less than 3 seconds is "random play" all songs on the disc. To disable all file " random play", press RANDOM button less than 3 seconds.

AUDIO CD OPERATION - CONTROL PANEL

The following functions are available operated through the control panel.



TRACK SELECT

Press the TRACK UP (⏭) or TRACK DOWN (⏮) button for less than one second to advance to the next track on the CD, The selected track number will appear on the display. Press and Hold TRACK UP (⏭) or TRACK DOWN (⏮) button for more than one second to fast forward or fast reverse through the disc. CD play starts when the button is released.

NOTE When the last track playback completed, the unit will automatically enter into 'STOP' mode. User can press play button to start the CD playback again when in the 'STOP' mode.

12) PAUSE/ PLAY BUTTON (1 ▶II)

1. Press PAUSE to pause playback (still mode). The sound from the disc is muted during still mode.
2. Press PLAY to resume normal playback.

13)STOP BUTTON (2 STOP)

1. Press STOP to stop playback and show the logo screen. The player memorizes the location where playback is stopped.
2. Press PLAY to resume playback from the location where playback is stopped (DVD, VCD 1.1, VCD 2.0 and audio CD).
3. Pressing STOP twice is resume playback from the beginning of the disc.

14)REPEAT BUTTON (3 RPT)

Press REPEAT button less than 3 seconds to "repeat play" the current song And keep on repeat Playing the current song until the "repeat play" is disabled. To disable current song"repeat play", press REPEAT button less than 3 seconds

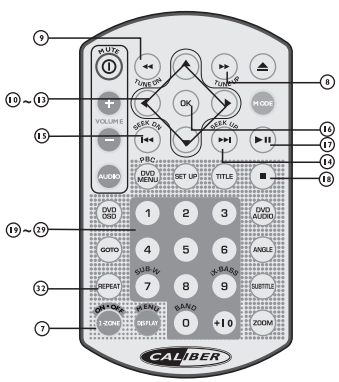
15)RANDOM BUTTON (4 RDM)

Press RANDOM button less than 3 seconds is "random play" all songs on the disc. To disable all songs " random play", press RANDOM button less than 3 seconds.

MP3/WMA OPERATION

MP3/WMA Operation-TFT Monitor
When a MP3/WMA disc is inserted into the player and the following picture will appear on the TFT monitor.

The player automatically plays the first track. The elapsed time within the track is displayed on the right side of the top line. When the track is finished, the second track will begin playing, and the track number on the top line will be updated. Press STOP to stop playback of the current file



17. PAUSE / PLAY BUTTON
18. STOP
14. NEXT
15. BACK
8~9 FAST FORWARD & FAST BACKWARD
19~29 NUMERIC BUTTONS
32. REPEAT
10~13 UP/DOWN/LEFT/RIGHT BUTTON
16. OK BUTTON
7. RANDOM BUTTON

MP3/WMA OPERATION - REMOTE CONTROL
To operates CD function through the following keys on the remote control.

SELECTING A TRACK TO PLAY
1. Use the UP/DOWN/LEFT/RIGHT direction buttons to move to different file numbers.
2. Press the RIGHT direction button when the highlighted file is in the column on the far right, and up to five more file in the current directory will be displayed.
3. Press the LEFT direction button when the highlighted file is in the column to the far left, and the previous five file will be displayed.
4. Press OK on a file number, and that file will begin to play, or by direct numeric input,
5. Enter a file number with the numeric buttons (0-9) and +10 button to play the input Files Number.

17) PAUSE/ PLAY BUTTON (▶II / M1)
1. Press PAUSE to pause playback (still mode). The sound from the disc is muted during still mode.
2. Press PLAY to resume normal playback.

18)STOP(■)
1. Press STOP to stop playback and show the logo screen. The player memorizes the location where playback is stopped.
2. Press PLAY to resume playback from the location where playback is stopped (DVD, VCD 1.1, VCD 2.0 and audio CD).
3. Pressing STOP twice is resume playback from the beginning of the disc.

14) NEXT(▶▶I)
Press NEXT to skip forward to the beginning of the next chapter.

15) BACK(I◀◀)
Press BACK to skip backward to the beginning of the previous chapter.

8~9) FAST FORWARD& FAST BACKWARD(▶▶/◀◀)
1. Press FAST FORWARD to fast forward through the disc. Each time the button is pressed, a new speed (2X, 4X, 8X or 20X) is selected.
2. Press PLAY to resume normal playback.
3. Press FAST BACKWARD to fast reverse through the disc. Each time the button is pressed, a new speed (2X, 4X, 8X or 20X) is selected.
4. Press PLAY to resume normal playback.

NOTE The fast forward/backward speed may differ depending upon the disc.

19~29) NUMERIC BUTTONS
1. When playback CD/MP3/WMA used for track number or File number direct access and used when function need numeric Selection or Input, like in the Goto function, etc.
2. Use when playback DVD which need numeric Selection or Input, like in the Goto function,etc

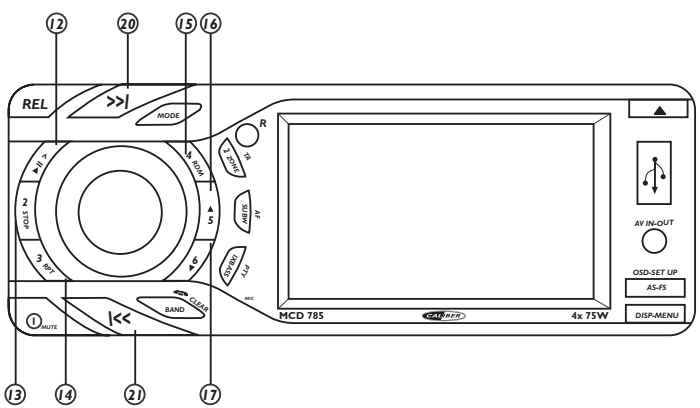
32)REPEAT
Press REPEAT button less than 3 seconds to "repeat play" the current file. And keep on repeat Playing the current file until the "repeat play" is disabled. To disable current file "repeat play", press REPEAT button less than 3 seconds

10~13)UP/DOWN/LEFT/RIGHT BUTTON (▲/▼/◀/▶)
Use to move cursor up/down/left/right.

16)OK BUTTON
Use this button to confirm the selection.

7) RANDOM BUTTON
Press RANDOM button less than 3 seconds is "random play" all files on the disc. To disable all file " random play", press RANDOM button less than 3 seconds.

MP3/WMA OPERATION - CONTROL PANEL
The following functions are available, operated through the control panel.



FILE SELECT
Press the TRACK UP (20) or TRACK DOWN (21) button for less than one second to advance to the next file on the CD, The selected track number will appear on the display. Press and Hold TRACK UP (20) or TRACK DOWN (21) button for more than one second to fast forward or fast reverse through the disc. CD play starts when the button is released.

TIPS When MP3/WMA is playback, the M5 (16) use as RIGHT direction button and M6 (17) use as LEFT direction. This is useful as navigate thru the LEFT page or RIGHT page which the MP3/WMA interface displayed on the TFT monitor.

NOTE When the last file playback completed, the unit will automatically enter into 'STOP' mode. User can press play button to start the DISC playback again when in the 'STOP' mode.

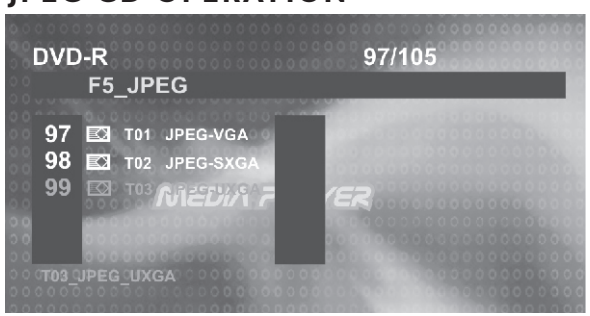
12) PAUSE/ PLAY BUTTON (1▶II)
1. Press PAUSE to pause playback (still mode). The sound from the disc is muted during still mode.
2. Press PLAY to resume normal playback.

13)STOP BUTTON (2 STOP)
1. Press STOP to stop playback and show the logo screen. The player memorizes the location where playback is stopped.
2. Press PLAY to resume playback from the location where playback is stopped (DVD, VCD 1.1, VCD 2.0 and audio CD).
3. Pressing STOP twice is resume playback from the beginning of the disc.

14)REPEAT BUTTON (3 RPT)
Press REPEAT button less than 3 seconds to "repeat play" the current song and keep on repeat Playing the current song until the "repeat play" is disabled. To disable current song"repeat play", press REPEAT button less than 3 seconds

15)RANDOM BUTTON (4 RDM)
Press RANDOM button less than 3 seconds is "random play" all songs on the disc. To disable all songs " random play", press RANDOM button less than 3 seconds.

JPEG CD OPERATION



LOADING AND DEFAULT PLAYBACK
After inserting the DISC the player searches for and counts the files with appropriate formats (currently only JPG, MP3 and WMA are supported).

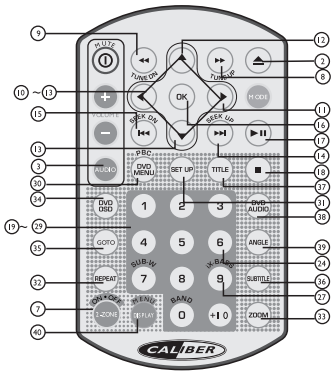
OSD will show the message: "Searching for files… ." CD-R media and the number of files found will appear over the logo background.

When the player has finished searching, it will automatically start Slideshow mode from the first picture; all pictures will be displayed in their file/folder order. Default Slideshow interval between pictures is five seconds. PAUSE, NEXT, BACK, and NUMERIC selection and navigation keys work the same as in other operations.

THUMBNAIL VIEW
1. Press the TITLE key to get a thumbnail view. Nine pictures (3x3) will be displayed on the screen, beginning with the last viewed picture on the upper left part of the screen. The first thumbnail image will be highlighted with a blue border.
2. Use the direction keys (LEFT/RIGHT/UP/DOWN) to select another thumbnail.
3. Use the NEXT/BACK keys to move to another thumbnails page.
4. Use the OK key to switch to the playback mode to start the image last highlighted in the thumbnail view.

DVD OPERATION

DVD OPERATION - REMOTE CONTROL



2) EJECT BUTTON (⏏)
Press the EJECT button to eject the disc or loading the disc.

17)PLAY/PAUSE (▶II)
1. Press PAUSE to pause playback.
2. Press PAUSE to single step forward to the next picture in the video (DVD and VCD only).
3. Press PLAY to resume normal playback.

18) STOP(■)
1. Press STOP to stop playback and show the logo screen. The player memorizes the location where playback is stopped.
2. Press PLAY to resume playback from the location where playback is stopped (DVD, VCD 1.1, VCD 2.0 and audio CD).
3. Pressing STOP twice is resume playback from the beginning of the disc.

8&9) FAST FORWARD& FAST BACK FORWARD(⏭ or ⏮)
1. Press FAST FORWARD to fast forward through the disc. Each time the button is pressed, a new speed (2X, 4X, 8X or 20X) is selected.
2. Press PLAY to resume normal playback.
3. Press FAST BACKWARD to fast reverse through the disc. Each time the button is pressed, a new speed (2X, 4X, 8X or 20X) is selected.
4. Press PLAY to resume normal playback.

NOTE The fast forward/backward speed may differ depending upon the disc.

14) NEXT(⏭)
Press NEXT to skip forward to the beginning of the next chapter.

15) BACK(⏮)
Press BACK to skip backward to the beginning of the previous chapter.

32)REPEAT
Press REPEAT button less than 3 seconds to "repeat play" the current file. And keep on repeat playing the current file until the "repeat play" is disabled. To disable current file "repeat play", press REPEAT button less than 3 seconds

10~13) UP/DOWN/LEFT/RIGHT BUTTON
Use these buttons to move cursor up/down/left/right.

16) OK
Use this button to confirm the selection.

19 ~29) NUMERIC BUTTONS

1. When playback CD/MP3/WMA use for track number or File number direct access and use when function need numeric Selection or Input, like in the Goto function,etc.
2. When playback DVD use when function need numeric Selection or Input, like in the Goto function,etc

30A) DVD MENU

1. Press DVD MENU to invoke the menu screen included on the DVD disc (DVD only).
2. Press direction buttons to highlight a selected menu entry.
3. Press OK or PLAY to select the highlighted entry. If the highlighted entry indicates a chapter or title, the disc will play from the selected spot.

30B). PBC (PLAY BACK CONTROL) (FOR VCD DISC ONLY)

1. Press DVD MENU to enable/disable PBC functionality with VCD 2.0 discs. PBC must be enabled for menu navigation.
2. Press a number on the number pad to select a track to play(VCD 2.0 only).
3. Press OK to make the selection.
4. Press DVD MENU for the main menu.

34)OSD BUTTON

1. Press OSD button once to display the amount of time played and time remaining to be played on the disc. For example, the OSD may display:

2. Press OSD button a second time to additionally display the disc type, current chapter (DVD) or track (VCD, audio CD), and total number of chapters or tracks. Also displayed (for DVD only) is the current title, total number of titles, audio language/type/# of channels, subtitle language, and angle selection. For example, the OSD may display:

3. Press OSD button a third time to make the OSD disappear.

TIPS Press OSD button in MPEG4 file will display the file name, version, file size and frame rate.

35) GOTO BUTTON

Using GOTO to Jump to a Specific Time, Chapter/Track, or Title 1. Press GOTO to enable the GOTO Menu. The OSD will display the following:

2. Press the UP/DOWN direction buttons to select the type of search: time search or Chapter/track/title search.

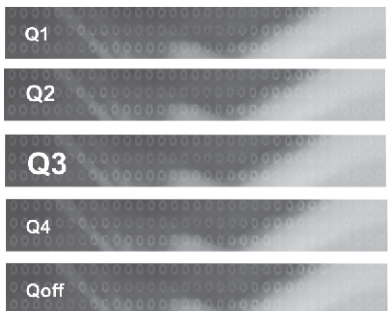
- Select "Time" to jump to a spot on the disc and enter the time in units of hours, minutes, and seconds (hh:mm:ss):

- Select "Title/Chapter" to jump to the beginning of a specific chapter within a specified title (DVD only) and enter the title and chapter numbers with the number pad and LEFT/RIGHT direction buttons, as follows:

- Select "Track" to jump to the beginning of a specific track within a non-DVD disc and enter the track number with the number pad, as follows:

33) ZOOM BUTTON

1. Press ZOOM during normal, slow, or still playback.
2. Pressing the ZOOM button repeatedly increases the magnification level. Three magnification levels are supported. On each press of ZOOM, the OSD will flash the following:



3. Pressing the direction buttons causes the zoom point to shift, allowing the zoomed image to be panned

1) Some discs may not respond to the zoom feature.
2) Zooming does not work on subtitles or menu screens included on DVDs.
3) The magnification level and number of available levels vary, depending on the TV TYPE selection in the Setup Menu.

37) TITLE

1. Press TITLE to invoke Title Menu (DVD only, dependent on authoring of disc).
2. Press direction buttons to highlight selected Title Menu entry.
3. Press OK or PLAY to select the highlighted entry. If the highlighted entry indicates a title, that title will play from Chapter 1.

36) SUBTITLE

Press SUBTITLE during playback to turn on/off subtitles and to change the subtitles (DVD only). The OSD indicates the current setting, giving the subtitle track number and the language selected, for example:

NOTE 1) The first press will show the current subtitle setting selected; subsequent presses toggle to the next subtitle setting.
2) Some DVDs display subtitles automatically and cannot be turned Off, even if the subtitle function is set to Off.
3) During some scenes, the subtitles may not appear immediately.
4) Some DVDs allow subtitle selections and turn subtitles on or off only via the disc menu.
5) When a disc is replaced, the Set Up returns to the default setting.

38)DVD AUDIO
Press DVD AUDIO during playback to change the audio language when playback a DVD disc. The OSD indicates the current setting by giving the audio track number, language, audio type, and number of channels. For example:

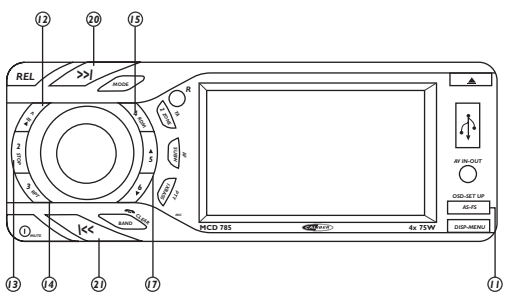
NOTE 1) The first press shows the current language selected; subsequent presses toggle The next audio language
2) Some DVDs allow audio selection change only via the disc menu.
3) When a disc replaced, the Set Up returns to the default setting.

39) ANGLE

Press ANGLE while playing a scene recorded with multiple angles to change the angle (DVD only). The OSD indicates the current angle selected and the total available angles to select, for example:

NOTE 1) The first press will show the current angle selected. Subsequent presses toggle to the next angle.
2) The TFT monitor will light its angle icon when angle changes are available.
3) Some DVDs allow angle changes only via the disc menu.
4) When a disc is replaced, the Set Up returns to the default angle.

DVD OPERATION - CONTROL PANEL



Once a DVD disc is inserted into the unit, the unit will automatically start the playback from the beginning of the disc, and then the DVD MENU or ROOT or TITLE in the DVD disc will appear on the TFT monitor and "ROOT" will be displayed on the TFT of the unit.

TIPS Under the DVD MENU or ROOT or TITLE is display on the TFT Monitor. The buttons of Track up / down (20 / 21) use as LEFT / RIGHT direction button, Encoder Volume Knob (6) as UP / DOWN direction button, and Audio (4) as OK button.

12.PLAY/PAUSE (1▶II)
1. Press PAUSE to pause playback.
2. Press PAUSE to single step forward to the next picture in the video (DVD and VCD only).
3. Press PLAY to resume normal playback.

13.STOP (2 STOP)
1. Press STOP to stop playback and show the logo screen. The player memorizes the location where playback is stopped.
2. Press PLAY to resume playback from the location where playback is stopped (DVD, VCD 1.1, VCD 2.0 and audio CD).
3. Pressing STOP twice is resume playback from the beginning of the disc.

20. NEXT(⏭)
Press NEXT to skip forward to the beginning of the next chapter.

21. BACK(⏮)
Press BACK to skip backward to the beginning of the previous chapter.

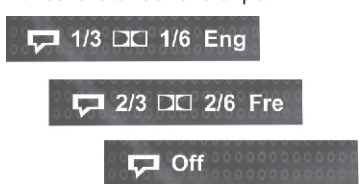
20/21. FAST FORWARD & FAST BACK FORWARD (⏭ or ⏮)
1. Long press FAST FORWARD to fast forward through the disc. Each time the button is pressed, a new speed (2X, 4X, 8X or 20X) is selected.
2. Press PLAY to resume normal playback.
3. Long press FAST BACKWARD to fast reverse through the disc. Each time the button is pressed, a new speed (2X, 4X, 8X or 20X) is selected.
4. Press PLAY to resume normal playback.

14.REPEAT (3 RPT)
Press REPEAT button less than 3 seconds to "repeat play" the current file. And keep on repeat Playing the current file until the "repeat play" is disabled. To disable current file "repeat play", press REPEAT button less than 3 seconds

15. DVD MENU (4 RDM)
Press DVD MENU button less than 3 seconds to invoke the DVD MENU or ROOT on the DVD disc.

TIPS Under the DVD MENU or ROOT or TITLE is display on the TFT Monitor. The button of Track up / down (20 / 21) use as LEFT / RIGHT direction button, Encoder Volume Knob (6) as UP / DOWN direction button, and Audio button (4) as OK button.

17.DVD AUDIO (6 <)
Long press DVD AUDIO button during playback to change the audio language (DVD only). The OSD indicates the current setting by giving the audio track number, language, audio type, and number of channels. For example:



NOTE - The first press shows the current language selected; subsequent presses toggle the next audio language
- Some DVDs allow audio selection change only via the disc menu.
- When a disc replaced, the Set Up returns to the default setting.

11.OSD (AS/PS)
1. Press AS/PS once to display the amount of time played and time remaining to be played on the disc. For example, the OSD may display:

2. Press AS/PS a second time to additionally display the disc type, current chapter (DVD) or track (VCD/SVCD, audio CD), and total number of chapters or tracks. Also displayed (for DVD only) is the current title, total number of titles, audio language/ type/# of channels, subtitle language, and angle selection. For example, the OSD may display:

TIPS The AS/PS in MPEG4 file will display the file name, version, file size and frame rate.

11.SET UP (AS/PS)

While the DVD disc is being played or under stop mode, the "SET UP" (AS/PS) button on the control panel serve the following function:

NOTE ***Long*** Press "SET UP" (AS/PS) button to bring up the System Setup Menu

TIPS Please refer to the related description in "system Set Up" for details operation of "Set Up" !

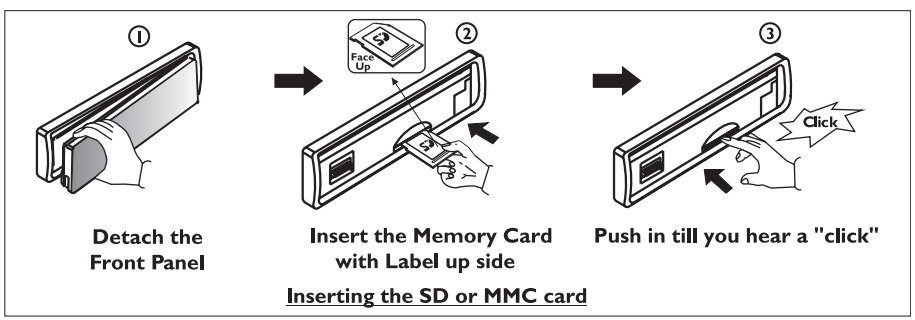
After pressing the "Set Up" button, the LCD will display "Set Up" and keep on blinking. User can use the following buttons to adjust the "Set Up" items shown on the TFT monitor as follow:
- Encoder Volume Knob as Cursor to navigate thru the Set Up Items shown on the TFT Monitor.
- Track Up / Down (20 / 21) buttons as Cursor Left / Right to navigate thru the Set Up items shown on the TFT Monitor.
- AUDIO button as ENTER to confirm the selected item shown on the TFT Monitor

TIPS ***Short*** Press "Set Up" button again or "Play" button to resume the DVD playback .

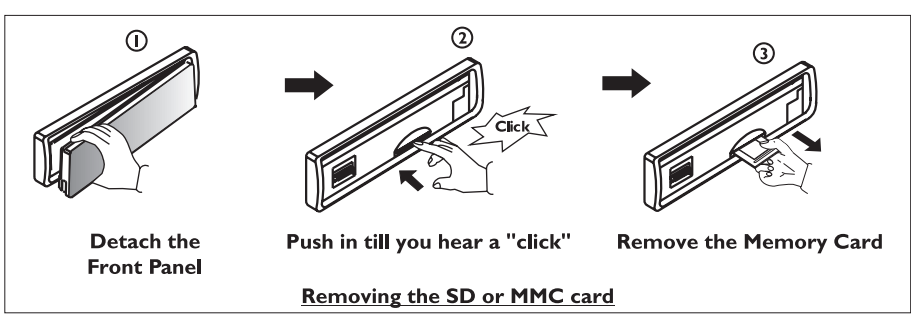
MEMORY CARD OPERATION

The unit can support playback MP3 / WMA / JPEG and MPEG4 format which are stored into **SD** and **MMC** Memory Card (Max 2GB, max 1000 tracks). Pls read below before you start the operation of Memory Card

Inserting and Removing a SD or MMC card on the main unit



Inserting the SD or MMC card



Removing the SD or MMC card

MODE CHANGE TO MEMORY CARD

After a SD or MMC card was inserted into the main unit card slot Press Mode button to select card mode. The unit will starts playing the files contained on the Memory Card. Once the unit read the Memory Card successfully, the first file on the Memory Card will automatically start playback. Press Mode button repeatedly is allowing changing to other modes or switch back to card mode.

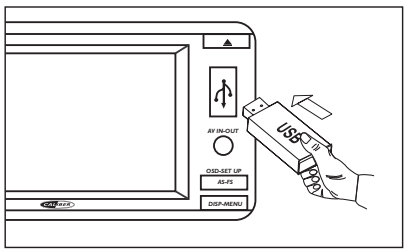
If no any Memory Card is inserted into the main unit card slot. Press mode button will Automatically skip card mode.

FILE PLAYBACK OPERATION

All the SD or MMC Memory Card playback operation function is same as the operation on CD/MP3/WMA. Pls refer to 'CD/MP3/WMA Operation' for more details.

USB OPERATION

The unit can support playback MP3 / WMA / JPEG / MPEG4 format which are stored on the Memory Stick (Max. 1000 tracks). Please read carefully the below instruction before you start the operation of USB Function.



Mode change to USB HOST

Under any other mode while inserting a USB stick into the USB connector, the unit will automatically switch from the current mode to USB mode.
Once the unit reads the USB stick successfully, the first audio music file on the USB stick will automatically start playing. Press the MODE button repeatedly to change to another mode or switch back to USB mode.

WARNING

Before removing the USB stick from the USB connector. Please always remember to switch off the unit's power or switch to other mode then remove out the USB Stick. Never try removing the USB Stick while playing music file on the USB stick. It may damage the USB Stick and sometimes will cause the unit system to lock up.

NOTE

- The unit can support playback Music Player which have USB Interface. However due to the fast changing decoder technology and different kind of hardware interface, this unit may or may not be compatible to all the Music Player and USB Stick especially those USB Stick / Player which require to install a program driver.

- About Music Flash Player with USB Interface, usually, the unit takes longer time to read this kind of player than normal USB Stick. Especially, if the Flash Player with built-in power battery sometimes takes 20-30 seconds to start up the playback.

- This unit is not compatible with any Portable type of Hard disk.

File Playback Operation

All the USB playback operation function is same as the operation on CD/MP3/WMA. Pls refer to 'CD/MP3/WMA Operation' for more details.

MULTI-FORMAT DISC

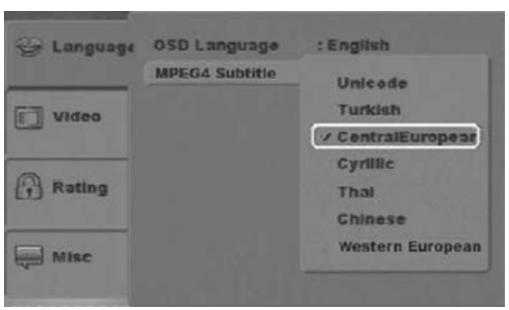
FILTER FUNCTION

If a DISC or USB or MEMORY CARD contains various categories of files. This "Filter" function can hide the files and not allow selection during the File/Folder searching.

1. The selection is done among the 3 categories: a. Audio, b. Photo, c. Video
2. Use right arrow keys to go the " Filter" field, press "OK" key to open the selection box.
Use up/down keys to navigate through the categories that need to be hidden.
Then press "OK" key to confirm, Use left key to exit the filter function.

MPEG4 OPERATION

The unit is support playback MPEG4 files , the details operation is exactly the same as CD/MP3/ WMA operation. The following are special functions pertaining to the playback of MPEG4 File:



EXTERNAL SUBTITLE

External Subtitle setting is used for choosing the language domain, (only for MPEG4). After selecting one language domain (alphabet), when playback a MPEG4 with external subtitle, the subtitle display will use this language alphabet. If the displaying subtitle "alphabet" isn't correct, please make sure to select the correct external subtitle language domain.

The following language domains are available:

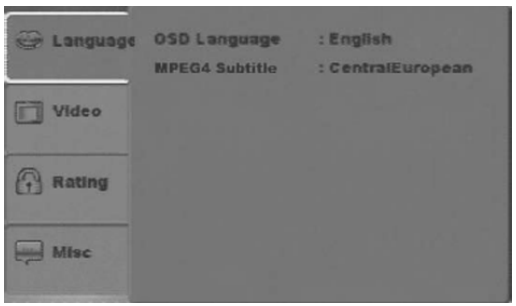
Turkish	= Albanian, Danish, Dutch, English, Finnish, French, Gaelic, German, Italian, Kurdish (Latin), Norwegian, Portuguese, Spanish, Swedish and Turkish.
Central_European	=Albanian, Croat, Czech, Dutch, English, German, Hungarian,Irish, Polish, Romanian, Slovak, Slovene and Sorbian.
Cyrillic	=Bulgarian, Belorussian, English, Macedonian, Moldavian, Russian, Serbian and Ukrainian.
Western European	=Albanian, Breton, Catalan, Danish, Dutch, English, Faroese, Finnish, French, Gaelic, German, Icelandic, Irish, Italian, Norwegian, Portuguese, Spanish and Swedish.

NOTE The MPEG4 Subtitle selection appears in the 'SET UP" menu > language > MPEG4 subtitle

SYSTEM SET UP MENU

The System Menu allows the user to configure the player's behavior to work in harmony with components to which the player is connected. Press the SET UP on the remote control or Long press "AS/PS" button on the front panel to invoke the Setup Menu. Pressing the System Menu button during the Setup, Menu will be displayed and the setup menu will be turned off. Setup menu can be opened during playback.

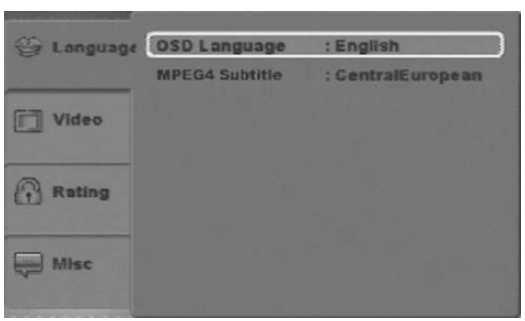
When the setup Menu is invoked, the OSD will display the following "buttons:"



1. The 'Up/ Down' buttons can be used to select the category of settings which need to be changed. The page of setting for that category will be displayed instantly once selected the category.
2. When the category changes are set, press 'Up/ Down' repeatedly to return to the text buttons. Selecting the appropriate button and pressing 'OK' can change settings in a different category.

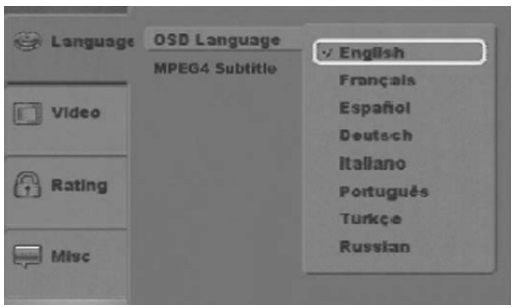
LANGUAGE SETTINGS

1. Using the Up/Down buttons, move to the Language button. The player's Language settings will appear:



2. Use the Right buttons to select the setting.
3. Use the Up/ Down direction buttons to select the setting to be changed.
4. Press Ok to cycle through each possible option or display a list of the available options.
When a list of options appears, press the Up/Down buttons to move among the displayed options.
5. Press Ok again to choose the option and change the setting.
6. Press Ok (after cycling through the options) to change the displayed value of the next available option and change the setting.

OSD Language
Selecting the OSD setting allows the user to select a preferred language for the OSD menu and messages. The following options are available:



English = Menu/OSD is in English (factory default)
Français = Menu/OSD is in French
Español = Menu/OSD is in Spanish
Deutsch = Menu/OSD is in German
Italiano = Menu/OSD is in Italian
Portugués = Menu/OSD is in Portuguese
Turkçe = Menu/OSD is in Turkish
Russian = Menu/OSD is in Russian

NOTE Some DVDs may not include the pre-selected language. In this case, the unit will automatically display menus in the disc's initial language setting.

VIDEO SETTINGS
1. Using the Up/Down buttons, move to the Video. The Player's Video settings will appear:

2. Use the Right buttons to select the setting.
3. Use the Up/Down buttons to select the setting to be changed.
4. Press Ok to cycle through each possible option or display a list of the options. When a list of options appears, press the Up/Down buttons to move among the displayed options.
5. Press Ok again to choose the option and change the setting.
6.Press Ok (after cycling through the options) to change the displayed value of the next available opions and change the setting.

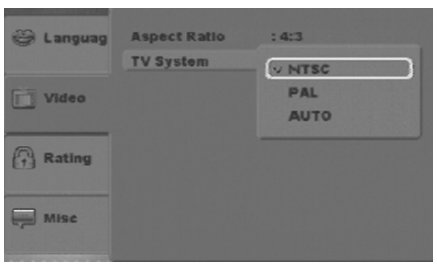
The following subsections explain the available options for each of the Video settings.

TV Aspect Ratio
Selecting the TV Aspect setting allows the user to select the aspect ratio of the TV (DVD and VCD only). The following options are available:

4:3 = Aspect ratio of TV is 4:3.
16:9 = Aspect ratio of TV is 16:9. Both widescreen and 4:3 contents will fill the entire screen.

NOTE Most widescreen DVDs will not allow pan & scan conversion. If 4:3 PS is selected on these DVDs, letterboxing will be used instead.
If 16:9 is selected and a 4:3 TV is connected, 16:9 content will appear distorted during playback (objects look thin).

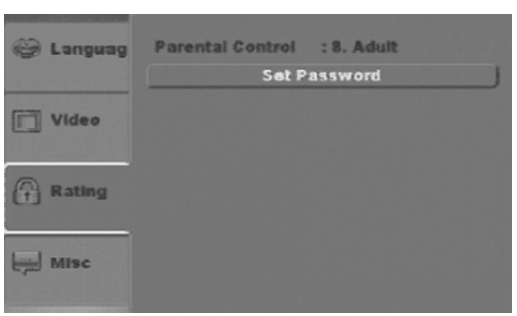
TV System (NTSC or PAL)
The Video setting allows the user to select the TV standard (DVD and VCD/SVCD only). The following options are available:



NTSC = TV is NTSC. PAL content is played at NTSC resolution and frame rate (factory default).
PAL = TV is PAL. NTSC content is played at PAL resolution and frame rate.
AUTO = If the content is PAL, the output is PAL. If the content is NTSC, the output is NTSC.

NOTE Playing PAL DVDs with TV SYS set to NTSC is not allowed.
The OSD will indicate:(OSD) PAL to NTSC error.

RATING SETTINGS
1. Using the Up/Down buttons, move to "Rating", the Rating settings will appear:

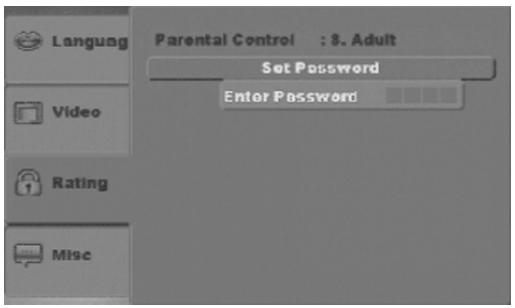


2. Use the Right buttons to select the setting.
3. Use the Up/Down buttons to select the setting to be changed.

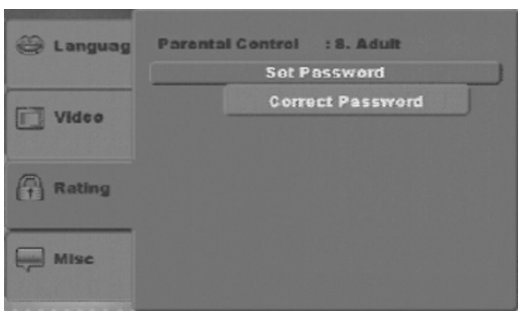
The following subsections explain how to change each of the player's Rating settings.

Parental Control Rating Selection

The Rating allows the user to have parental control feature of the player. Press the "OK" button the below window will appear on the screen, to allow user to enter the password, will pop up a window let user set password:



Once entered the correct password, press "OK" the "correct password" message will appear.



Press Ok to to cycle through the available options. The following options are available:

Kid Safe	= Only titles with a parental control setting of 1 are allowed to play
G	= Only titles with a parental control setting of 2 or less are allowed to play
PG	= Only titles with a parental control setting of 3 or less are allowed to play
PG-13	= Only titles with a parental control setting of 4 or less are allowed to Play
PG-R	= Only titles with a parental control setting of 5 or less are allowed to play
R	= Only titles with a parental control setting of 6 or less are allowed to play
NC-17	= Only titles with a parental control setting of 7 or less are allowed to play
Adult	= Allow any title to play (factory default).

NOTE If incorrect password is entered, the below "Incorrect Password" window will appear.

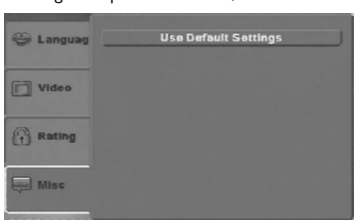
NOTE The factory default password is 8888
Parental control functions only available if the DVD title is encoded in its program.
Parental control does not work for VCD/SVCD/CVD or CD audio.

Set password setting

User can set new password in the Set password setting. Go to "set", press Ok to pop up the "Enter Password" window, enter the old password. Press Ok twice, then the "Enter New Password" window will pop up, Enter the new password, press Ok to confirm.

MISC

1. Using the Up/Down buttons, move to the Misc. the Misc Rating settings will appear:



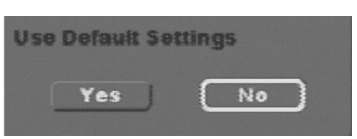
2. Use the Right buttons to select the setting.
3. Use the Up/Down buttons to select the setting to be changed.
4. Press Ok for each setting to cycle through the options and change the settings.

The following subsections will explain the available options for each of the Misc settings.

Use Default Settings

Press Ok, pop up window " Use Default Setting", there are two selections: Yes/No.

No = Close Setup menu
Yes = Return to Use Default Setting

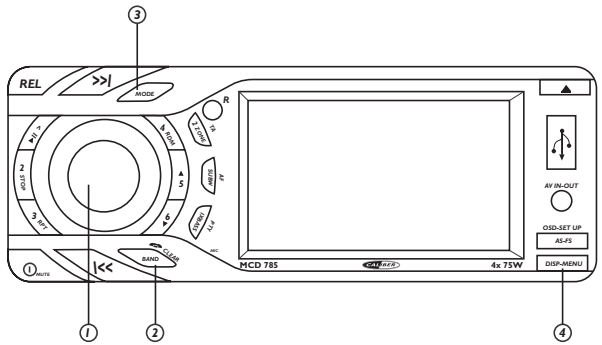


BLUETOOTH HANDSFREE OPERATION

User guide for bluetooth operation

1. When user use our Blue tooth HEAD UNIT, please make sure the mobile phone you use must / does support Blue tooth functions (Headset or Handsfree profiles or both)
2. Before you start to use our Bluetooth HEAD UNIT, please make sure complete pairing with your mobile phone first. Please refer to the user manual, section "PAIRING" for detail "PAIRING" instruction. To ensure the best reception for Pairing or Re-connection, please make sure the Phone Battery is fully charged when making the Pairing or Re-connection.
3. Please always try pairing the Mobile Phone with Head unit after a few minutes of the Mobile Phone was Switched On to ensure the best pairing result.
4. is this unit device model number which is displayed on the mobile phone. "BT60"
5. To achieve the best performance, please always keep the Mobile Phone within 3 meters of the Head unit.
6. Please always keep a clear path between the Mobile Phone & the Head unit.
7. Never put any metal object or any obstacle between the path of the Mobile Phone & the Head unit.
8. Some brand of Mobile Phone like Sony Ericsson may have "Power Saving Mode" selection when Blue Tooth mode is switched on. **PLEASE DO NOT** Switches ON Power saving Mode when operating with this Head Unit, as some abnormal communal behavior will happen occasionally if Power Saving Mode is switched on.
9. Before user make Outgoing call or Incoming call, make sure the mobile phone's "Blue Tooth function" was switched "ON".
10. To ensure the best conversation quality / performance, please always keep talking within 1 meter of the Head Unit.
11. If user want to Dis-connect the Head unit with the Mobile Phone, please switch "OFF" Blue Tooth connectivity on the Mobile Phone,or go to the system menu, "dis-connect" to disconnect the bluetooth connectivity manually. (please refer to the user manual, section "dis-connection of the bluetooth system for details instruction.)
12. Some Mobile Phones can support "IN BAND RING TONE", such as Nokia. In such case, the Incoming Ringing Tone will be same as the original Ring-tone of the Mobile Phone. But some Mobile Phones like Sony Ericsson do not support this feature. The Ring-tone will be using the standard Ring-tone of the Head unit.
13. **When in telephone mode, during talking, it is highly recommended to set the volume to below "30" in order to achieve the best sound quality. As if the volume is too high, it may create unwanted echo inside the car, and this unwanted echo may feedback into the microphone.**
14. If the Bluetooth related operation is not performing normally, like cannot make pairing, cannot making an outgoing call, User can try to make a SOFT-RESET of the Bluetooth module by removing / detaching the panel from the main unit and waiting for about 1 min. Then re-attach the panel to the unit & retry the Bluetooth operation again. Or user can RESET the whole unit by pressing the RESET button behind the panel.

NOTE By pressing the RESET button all the stored memory will resume to factory default.



Bluetooth hand free panel function key matrix

Panel function button			Bluetooth hand free function
1	AUDIO		Answer Incoming call
2	BAND		Reject Incoming call
3	MODE	Long Press	Transfer Phone Conversation backward to Mobile Phone
		Short Press	Answer Incoming call
4	MENU		Pairing / Re-Connection etc Note: See Menu operation for more details.

PAIRING

Pairing the bluetooth system between user's mobile phone & the unit

Access into MENU - PAIRING mode to activates the operation of Pairing .

NOTE Pls see MENU Operation for more details of how to access into MENU mode .

Once the "PAIRING?" is appearing on the LCD Display, press the AUDIO button to activate the Pairing mode.

NOTE Keep the mobile phone within 2 meter from the unit when making the pairing.

To terminate the pairing, you can press the "CLEAR(BAND)" button at any time.
Select the Blue Tooth set up on the Mobile Phone

NOTE Please refer to the instruction manual of your mobile phone on how to enter into the blue tooth set up and blue tooth on / off, and blue tooth pairing.

"BT60" should appear in the pairing list on the mobile phone. User need to select and then input the password "1234".
If the pairing is successful, the display will show "PAIRING OKE!" and Mobile Phone Name.
If the pairing failed, "PAIRING FAIL!" will be flashing on the Display for 3 seconds. And the unit will switch back to the previous mode automatically.

NOTE During the Pairing, only Power, CLEAR(BAND) ,Volume +/- & Mute are functional, other function keys are disabled & non-operational during the pairing mode.

Re-Connection of the bluetooth system

The unit is with built-in Auto-Reconnection function. In some conditions, user need to reconnect manually. For example like the following.

If The Mobile Phone is out of range. (2 meters away from the Head unit) Under the condition of lost connection when the user come back to the unit. At the same time, there is an incoming call or user is under conversation on the Mobile Phone 2 meters away from the Head Unit and come back to Head unit.
If user wants Audio Transfer back from Mobile Phone to Head unit. It needs to re-connect manually.

The unit can be re-connected by the following methods.
Access into MENU "RECONNECT" mode to activate the manual RE-Connection.

NOTE Pls see MENU Operation for more details of how to access into MENU mode.

Once the "RECONNECT" is displayed on the LCD, press the AUDIO button to activate the manual RE-Connect mode.

NOTE 1.Keep the mobile phone within 2 Meter from the unit when making the connection.

NOTE 2.The manual re-connect is only function with the Mobile Phone has already been paired with the unit before.

The LCD Display will displayed "RECONNECT" during the connecting period.
If the re-connection is successful, the LCD Display will display "RECONNECT OK! and the unit will switch back to the previous mode automatically.
If the re-connection failed, the LCD Display "RECONNECT FAIL" will display and the unit will switch back to the previous mode automatically.

>>

The unit will be Auto Re-Connection by following operation .
Every time turn the ignition key from off to on, the unit will Auto re-connect with the mobile phone one.

Dis-Connection of the Bluetooth System

The unit have a option function for user to disconnect the Blue Tooth system with the unit.
The unit can be Dis-connected by the following methods.

Access into MENU - RECONNECT mode, then rotate the encoder volume knob to select the "DISCONNECTION"mode.

NOTE Pls see MENU Operation for more details of how to access into MENU mode.

Once the "DISCONNECT" is display on the LCD , press the AUDIO button to activate the manual Re-Connect mode.
The LCD Display will displayed "DISCONNECT... " during the Dis-connecting period.

If the Dis-Connection is successful, the LCD Display will display "DISCONNECT OKE! ". And the unit will switch back to the previous mode automatically.

INCOMING CALL

Answering an incoming call
When there is an incoming call, the LCD Display will display If the incoming call has no , the LCD will display "CALL ANSWER? " User can press the "PHONE(AUDIO)" button or "MODE" button to answer / accept the call.

NOTE The audio output of the present mode will be muted and the ringing tones will be heard if an incoming call is not being answered.

User can use the volume up/down to adjust the volume level.
To end the conversation, press the "CLEAR(BAND)" button. The unit will switch back to the previous mode automatically and release the mute of the previous mode at the same time.

NOTE An incoming call under stand by mode (Ignition on & Power Off) The system will automatically switch on the head unit.

NOTE While there is an Incoming call or under talking mode, the Panel Open/Eject key is disactivated.

Rejecting an incoming call
User can press "CLEAR(BAND)" button to reject the incoming call.

NOTE The audio output of the present mode will be muted and the ringing tones will be heard, if an incoming call is not being answered.
After pressing the "CLEAR"(BAND) button,
the mute of the present mode will be released.

OUTGOING CALL

Use the mobile phone which paired with this unit to making an outgoing call.
During the talking mode, the LCD Display will display "TALKING... "
User can use the volume up/down to adjust the volume level.
To end the conversation, press the "CLEAR(BAND)" button . The unit will switch back to the previous mode automatically. The mute of the previous mode will be released at the same time.

During the talking mode, if the Ignition is being turned off, the unit will keep the conversation even if the Ignition is Switched off. After finished the conversation, User can press "CLEAR(BAND)" button to switch off the unit.

Once the " " is display on the LCD, press the AUDIO button to activate the manual Dis-Connect mode.
If the Dis-Connection is successful, the LCD Display will display " ". And the unit will switch back to the previous mode automatically.

CALL TRANSFER

To audio transfer from head unit back to the mobile phone
During the talking mode, user can LONG press the "TRANSFER"(MODE) button more than 3 seconds to transfer the audio from the unit back to the mobile phone for privacy reason.
The LCD Display will CALL TRANSFER

NOTE After the "Transfer" button is pressed, the mute of the present mode will be released at the same time.

NOTE Depending on different type of Mobile Phone, the time need for activating the CALL TRANSFER mode is different. Like Nokia Mobile Phone usually takes 3-5 seconds after pressed the "TRANSFER" button for audio transfer back or forth through Unit to mobile phone.

HIGHLIGHT FEATURES

Incoming call ringing volume
Preset the Ringing volume level for any incoming call.

NOTE Pls see "MENU"- "PHONE VOL" for details operation.

SPECIFICATION

TFT SCREEN SECTION

Screen Size: 3.5"(Measured Diagonally)
Screen Type: TFT Liquid Crystal Display active matrix
Resolution: 960 (W) x 324 (H)

DVD / CD SECTION

Compatible Disc/Format	See " Disc Note" for more details description
Signal to Noise Ratio	> 90 dB
Dynamic Range	> 90 dB
Frequency Response	20Hz to 20Khz +/-3dB

VIDEO SECTION

Color System	NTSC / PAL
Video Output	Composite 1.0 Vp-p (+/- 0.2) 75 - ohm
Video Input	Composite 1.0 Vp-p (+/- 0.2) 75 - ohm

AUDIO SECTION

Line out level	2 Volt
Line out Impedance	200 ohm

AUXILIARY INPUT SECTION

Input Maximum Voltage	1200 mV
Input Impedance	4.7k ohm

GENERAL

Fuse	15-Amp Mini ATM Type
Operating Temperature	0°C to 50°C
Unit Mounting Angle	< 30°

TROUBLE SHOOTING

Before going through the check list, check wiring connection. If any of the problems persist after check list has been made, consult your nearest service dealer.

Symptom	Cause	Solution
No power	The car ignition is not on.	If the power supply is properly connected to the car accessory terminal, switch the ignition key to ACC
	The fuse is blown.	Replace the fuse.
Disc cannot be loaded or ejected	Presence of CD disc inside the player.	Remove the disc in the player, then put a new one.
	Inserting the disc in reverse direction.	Insert the compact disc with the label facing upward.
	Compact disc is extremely dirty or defective disc.	Clean the disc or try to play a new one.
	Temperature inside the car is too high.	Cool off or until the ambient temperature returns to normal.
	Condensation.	Leave the player to off for an hour or so, then try again.
No sound	Volume is in minimum.	Adjust volume to a desired level.
	Wiring is not properly connected.	Check wiring connection.
The operation keys do not work	The built-in microcomputer is not operating properly due to noise.	Press the RESET button. Front panel is not properly fixed into its place
Sound skips.	The installation angle is more than 30 degrees.	Adjust the installation angle to less than 30 degrees.
	The disc is extremely dirt or defective disc.	Clean the compact disc. Then try to play a new one.
The radio does not work. The radio station automatic selection does not work.	The antenna cable is not connected.	Insert the antenna cable firmly.
	The signals are too weak.	Select a station manually.
ERROR	Mechanism Error	Press the eject button to correct the problem. If the error code does not disappear, consult your nearest service dealer.
Disc Error	Maybe disc dirty / disc scratched /disc upside down.	Replace the disc.